

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003594**Date Inspected:** 05-Aug-2008**Project Name:** SAS Superstructure**OSM Arrival Time:****Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:****Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Bo/Xu Le Feng**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG/Tower**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Sherri Brannon arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions. While on site the QA Inspector observed and or discovered the following.

**Bay 3 – Heavy Duty Machinery Shop**

The QA Inspector observed ZPMC qualified welder Dong Yi Qun ID 059450 utilizing WPS-345-FCAW-2G (2F) Repair to perform Flux Core Arc Welding (FCAW) repairs of deck panel Partial Joint Penetration (PJP) welds on DP217-001 and DP082-001.

The welding in progress on the above listed deck panels generally appeared to conform to contract specifications.

**Tower Bay 1**

The QA Inspector randomly observed ZPMC Qualified and approved welding operator utilizing Submerged Arc Welding process (SAW) to weld the root pass of the complete joint penetration (CJP) butt weld joint to splice longitudinal stiffener plate (A) at the weld joint which was designated as SSD1-SA17 A/G-25 A/B.

A single 4.8mm diameter electrode filler metal brand JW-3 was used to complete the root pass, the in process welding parameters observed by QA Inspector Dixon appeared to be in general compliance with the approved WPS-B-T-2221-B-U3c-S-2.

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## WELDING INSPECTION REPORT

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### Tower Bay 1

The QA Inspector randomly observed ZPMC qualified welder welding longitudinal stiffeners to skin plate (E). The weld joints and designated as SSD1-SA16 A/G-13&14, and 9&10. The Qualified welders ID #s 067707, and 066418 were observed welding in the 2G (horizontal) position utilizing shielded metal arc welding (SMAW) process with a 4.8mm diameter electrode, filler metal TL-508 class E7018M manual.

The QA Inspector Dixon observed the ZPMC QC CWI Inspector Mr. Xu Le Feng verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). Welding parameters observed by QA Inspector Dixon appeared to be in general compliance with the approved WPS-B-P-2211-B-U3b.

### Tower Bay 2

The QA Inspector randomly observed ZPMC qualified welder tack welding longitudinal stiffeners to skin plate (E). The weld joints are both Partial Joint Penetration (PJP) and CJP weld joints and designated as ESD1-SA227 A/H-22 &23.

The WPS used during the CJP tack welding WPS-B-P-2212-TC-U5b and the WPS used during the PJP welding was WPS-B-P-2312-TC-P5

The Qualified welders ID #s 040614, and 048532 were observed welding in the 2G (horizontal) position utilizing shielded metal arc welding (SMAW) process with a 4.8mm diameter electrode, filler metal TL-508 class E7018M manual.

The QA Inspector Dixon observed the ZPMC QC CWI Inspector Mr. An Qing Xiang verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS).

### Summary of Conversations:

As noted within the report shown above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dixon,Roscoe
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Quality Assurance Inspector
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<b>Reviewed By:</b>	Lanz,Joe
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QA Reviewer
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